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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,673	07/24/2001	Taro Endo	01430/LH	3874

1933 7590 01/07/2005

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EXAMINER	
NGUYEN, KEVIN M	
ART UNIT	**PAPER NUMBER**
2674	

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,673	ENDO ET AL.	
	Examiner	Art Unit	
	Kevin M. Nguyen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is made in response to applicant's amendment filed on 08/02/2004. Claims 1-26 are currently pending in the application. An action follows below:

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-13, 16, 17 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Frederick et al (previously cited, US 6,314,479).

4. As to claims 1, 5, 24, and 25, Frederick teaches a display system associated with a method, the display system comprising:

a. a host apparatus (a host computer 14, fig. 6) has a digital graphic display (TDMS) (46), and a communication interface 35 (an image input interface, fig. 6, col. 7, lines 34-45).

b. The PC theatre communication interface 35 communicates between the PC 14 and display 12 (fig. 6, col. 7, lines 34-35).

c. The VESA Display Power Management Signaling (DPMS) specifies the operation of low power state in the display 12 (col. 14, lines 28-30). Thus, the

display 12 provides inherent a storing unit, the power state in the display 12 corresponds to the power consumption data as claimed.

d. The PC 14 reads the EDID data from the display 12 to determine the supported DPMS modes. For digital displays that only support active-off, it is recommended that the TMDS transmitter be turned off for all DPMS modes (col. 14, lines 59-62). The DPMS can be used by PC 14 to control the power state of the display 12 (col. 14, lines 30-31).

5. As to claims 2, 8 and 9, Frederick teaches the interface 35 which is implemented using DDC-2B and UBS communication links. The VESA DDC-2B standard is a simple interface that is based on the I2C bus (col. 9, lines 59-61).

6. As to claim 3, 10 and 11, Frederick teaches the display mode which controls in the VESA Monitor Control Command Set (MCCS) can be used by the PC 14 to enable these display video (col. 15, lines 23-25).

7. As to claims 4, 12 and 13, Frederick teaches the power LED on the front panel which is extinguished or changes color (col. 15, lines 5-7).

8. As to claim 6, Frederick teaches this information which is stored in the display 12 as a condensed memory block (col. 11, lines 4-5).

Both analog and digital displays go into a low power state if any of the video data or timing signals are out of range or are invalid. It is recommended that an OSD be used to communicate the problem to the consumer (col. 15, lines 10-13). The OSD is defined an information superimposing section.

The PC 14 reads the EDID filed stored in the display 12 over the DDC interface which is defined said display apparatus further comprises a memory, (block 60), col. 10, lines 51-52. The PC 14 requests status of the display 12 over the DDC-2B interface (block 72), col. 10, lines 62-63.

Thus, the power state, the OSD, the EDID and the status are defined said host-side communication section receives said on-screen display information.

9. As to claims 7 and 26, Frederick teaches a display system associated with a method, the display system comprising:

e. a host apparatus (a host computer 14, fig. 6) has a digital graphic display (TDMS) (46), and a communication interface 35 (an image input interface, fig. 6, col. 7, lines 34-45).

f. The digital graphic display signals are transmitted on a TDMS line 46 (fig. 6, col. 7, lines 45-46).

g. The PC theatre communication interface 35 communicates between the PC 14 and display 12 (fig. 6, col. 7, lines 34-35).

h. It is recommended that an OSD be used to communicate the problem to the consumer (col. 15, lines 10-13). The OSD is defined an information superimposing section.

i. The PC 14 reads the EDID filed stored in the display 12 over the DDC interface which is defined said display apparatus further comprises a memory, (block 60), col. 10, lines 51-52. The PC 14 requests status of the display 12 over the DDC-2B interface (block 72), col. 10, lines 62-63.

j. Thus, the power state, the OSD, the EDID and the status are defined said host-side communication section receives said on-screen display information.

10. As to claims 16 and 17, Frederick teaches OSD are displayed on the display monitor 12. Menu initiates on-device-display menu (see table 10, col. 14, line 21). Thus, it is obvious to provide inherent ASCII text data.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederick in view of Uhlin (newly cited, US 5,630,043).

13. As to claims 14 and 15, Frederick teaches all of the claimed limitation of claims 5 and 7, except for a first memory for storing on-screen display information, and a second memory for storing the on-screen display information... the indicatable bit map information.

However, Uhlin teaches superimposed with texture map 344 (OSD information) from off-screen memory portion 342 (a first memory) of video memory 340 and displayed on video display 350 (fig. 3, col. 4, lines 22-24). MPEG decoder 360 decodes and/or decompresses animated texture map data and may store it in frame buffer 370 (a second memory) as decompressed texture map data 371 (OSD information) (fig. 3, col. 4, lines 49-52). The texture map 344 is defined a bit map information.

Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide texture map 344, off-screen memory portion 342, texture map data 371, and frame buffer 370 for Frederick's memory, in view of the teaching Uhlin's reference because this would provide more accurately represent changes in lighting conditions on both static and dynamic objects as taught by Uhlin (col. 5, lines 55-58).

Allowable Subject Matter

14. The indicated allowability of claims 22 and 23 are withdrawn in view of the newly discovered references to Frederick, Uhlin, and Homoti et al. Rejections based on the newly cited references follow.

15. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frederick in view of Uhlin (newly cited, US 5,630,043).

16. As to claim 22, Frederick teaches a display apparatus comprising:

k. The VESA EDID information is stored in the display 12 as a condensed memory block (col. 11, lines 1-5).

l. If communication between the PC 14 and the display 12 is established, the PC 14 requests the supported controls of the display 12 and configures the user interface accordingly. This communication process is described in the block diagram shown in FIG. 7. The PC 14 reads the EDID file stored in the display 12 over the DDC interface. (Block 60). The PC 14 then requests the status (1) of the display 12 over the 1394 interface. (Block 62)...If not, the PC 14 requests the status (2) of the display 12 over the USB interface. (Block 68)....If not, the PC 14

requests the status (3) of the display 12 over the DDC-2B interface. (Block 72) (col. 10, lines 47-63).

m. The PC 14 reads the EDID data from the display 12 to determine the supported DPMS modes (4). For digital displays that only support active-off, it is recommend that the TMDS (5) transmitter be turned off for all DPMS modes (6) (col. 14, lines 59-62).

n. It is recommended that an OSD (7) be used to communicate the problem to the consumer (col. 15, lines 10-13).

o. (1), (2), (3), (4), (5), (6), and (7) are defined monitor request voltage information and monitor current consumption information.

Accordingly, Frederick teaches all of the claimed limitation of claim 22, except for a microdisplay apparatus.

However, Uhlin reviews other types of displays may be utilized such as goggles (microdisplay apparatus) associated with so-called virtual reality displays (col. 1, lines 19-22).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute Frederick's display 12 for the goggle, in view of the reviewing in Uhlin's reference, because this would provide "a new product category will be created. The VESA PC Theatre Interconnectivity architecture described herein allows both Personal Computer and Consumer Electronics companies to develop products that are compatible, self configuring, work together as a single system, and are easy to use" as taught by Frederick (col. 4, lines 22-28).

17. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frederick in view of Uhlin as applied to claim 22 above, and further in view of Hotomi et al (newly cited, US 6,473,058).

18. As to claim 23, Frederick and Uhlin teach all of the claimed limitation of claim 22, except for "a detector for detecting a power voltage and a power current consumption...a control section for controlling an output voltage."

However, Hotomi et al teaches from the information storage medium 51, data are inputted to the signal processor 52. The remaining power of the battery 55 is figured out by inputting a voltage detected by a voltage detecting circuit 56 into the controller 53, see fig. 21, col. 11, lines 4-8). Fig. 12 shows either on the first screen (10) or on the second screen (10) indicating the remaining electric power (col. 8, lines 1-3).

Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Frederick's circuit including the voltage detecting circuit 56, and the controller 53 for detecting a power voltage and a power current consumption, and one of the screens (10) displays an output voltage, in view of the teaching in the Hotomi's reference, because this would provide the remaining power of the battery is displayed on one of the screens, the user can expect the use-up of the battery and can prepare a new battery as taught by Hotomi et al (col. 8, lines 21-23).

19. Claims 20, 21, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederick in view of Rallison et al (previously cited, US 5,991,085).

20. As to claims 20, 21, 18, 19, Frederick teaches all of the claimed limitation of claims 5 and 7, except for interfacing a plurality of types of display apparatus and a

plurality of types of host apparatus. Rallison further teaches interfacing a plurality of types of host apparatus comprising host apparatuses (510, 503), a VCR, a videodisk player, a receiver, a personal computer (see figure 25A).

However, Rallison teaches interfacing a plurality of types of display apparatus comprising a HUD 102, a monitor, and a television 515a (see figure 22).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Frederick's connector including interfacing a plurality of types of display apparatus, and a plurality of types of host apparatus, in view of the teaching in the Rallison's reference, because this would provide a user to utilize different types of display devices and host controllers.

Response to Arguments

21. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
December 31, 2004

XIAO WU
PRIMARY EXAMINER